

Aquatic insects in rice fields from the East of Uruguay

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ABSTRACT

Uruguayan rice crop is mainly produced under irrigation, which generates a temporary semi-aquatic environment from tillering to pre-harvest. This condition may be favorable for the development of insects and other macroinvertebrates that depend on the aquatic environment. This differential feature, added to its location in wetland regions, presents the crop as a potential reservoir of biodiversity. Works on aquatic macroinvertebrates in Uruguay refer mainly to natural environments, but the studies in agroecosystems are scarce, without works on aquatic macroinvertebrates in rice crop in our country. This work is a first approach to the knowledge of insects and other aquatic macroinvertebrates from rice agroecosystem. Taxonomic groups composition may represent an approximation to the knowledge of water sources quality associated with rice production in eastern Uruguay. Sampling of aquatic macroinvertebrates was carried out in February 2015 in the localities of Julio María Sanz, El Tigre and General Enrique Martínez (Charqueada), in the department of Treinta y Tres. In each crop, macroinvertebrates were collected with a surber-type network at the entrance of water to the crop, the water outlet and a neighboring control area. Differences in the composition of morphospecies were found according to the location and source of water. The individuals of *Caenis* sp (Ephemeroptera: Caenidae) were associated with the water inlets, while the larvae of the diptera Syrphidae and Chironomidae (morphospecies 2) predominated in the water outlets. The highest richness and Shannon diversity indices were recorded in the location of El Tigre at the water outlet. Richness and Shannon diversity indices were higher than those recorded for similar crops in Costa Rica, Italy and Australia.

Key words: sustainability, biodiversity, conservation.